

Amendments to the Specification

Please replace paragraph [0012] with the following rewritten paragraph:

-- The reaction of ozone with water to form hydroxyl free radicals peaks at a wavelength shorter than 305 nm, so the UV light should have a wavelength of less than about 300 nm. The preferred wavelength is about 100 to about 300 nm and most preferably at about 253 nm because inexpensive commercial UV lamps produce light [[at]] that peaks at that wavelength. The conversion of ozone and water to hydroxyl free radicals from ozone and water is somewhat limited by the amount of UV radiation produced, but an intensity of a few  $\mu$ -Joules per  $\text{cm}^2$  per mole of ozone is usually sufficient; the preferred light intensity is about 1 m-Joule/ $\text{cm}^2$  per mole of ozone and intensities between 1  $\mu$ -Joule and 1 Joule/ $\text{cm}^2$  per mole of ozone may be used proficiently. The UV lamp that provides the light is preferably positioned so that the ozone and hydrogen atom donor mix and pass in front of the light as they enter the enclosure. --

Please replace paragraph [0013] with the following rewritten paragraph:

-- Hydroxyl free radicals can also be generated by exposing a mixture of hydrogen and nitrogen dioxide to UV light, which forms hydroxyl free radicals according to the overall equation:  $\text{H}_2 + \text{NO}_2 \rightarrow \text{HO}\cdot + \text{NO}$ . Unless the molar ratio of hydrogen to nitrogen dioxide is 1:1 there will be excess hydrogen or nitrogen dioxide, but a practical molar ratio is about 0.9:1 to about 1.1:1. --

Please replace paragraph [0018] by the following rewritten paragraph:

-- This invention is useful against most, if not all, microorganisms, including those that are harmful to humans and animals, such as the pathogens that cause smallpox, anthrax, plague, botulism, tularemia, and hemorrhagic fever. Examples of such pathogens include viruses such as herpes simplex and HIV; bacteria such as *Bacillus anthracis*, *Escherichia coli*, *Enterobacter cloacae*, *Klesibella pneumoniae*, *Salmonella typhimurium*, *Salmonella schottmulleri*, *Salmonella choleraesuis*, *Salmonella enteritidis*, *Staphylococcus aureus*,[[,]] *Streptococcus faecalis*, *Vibrio cholerae*, *Clostridium botulinum*, and *Clostridium perfringens*; fungi such as *Aspergillus flavus*, *Aspergillus ochraceus*, *Penicillium toxicarium*, and *Fusarium graminearum*; and single-celled organisms such as amoebae. Hydroxyl free radicals may also destroy ~~piens~~ prions, fungus spores, various parasites, and many chemical warfare agents such as phosgene and mustard gas. --